

Notation as Art



"A musical notation is a language which determines what you can say;
what you want to say determines your language."

Cornelius **Cardew** 1961

Inside the Wind - For Chorus

Randy Raine-Reusch - 07/05/03



Richard Hoadley
2007-17
v0.7

Note

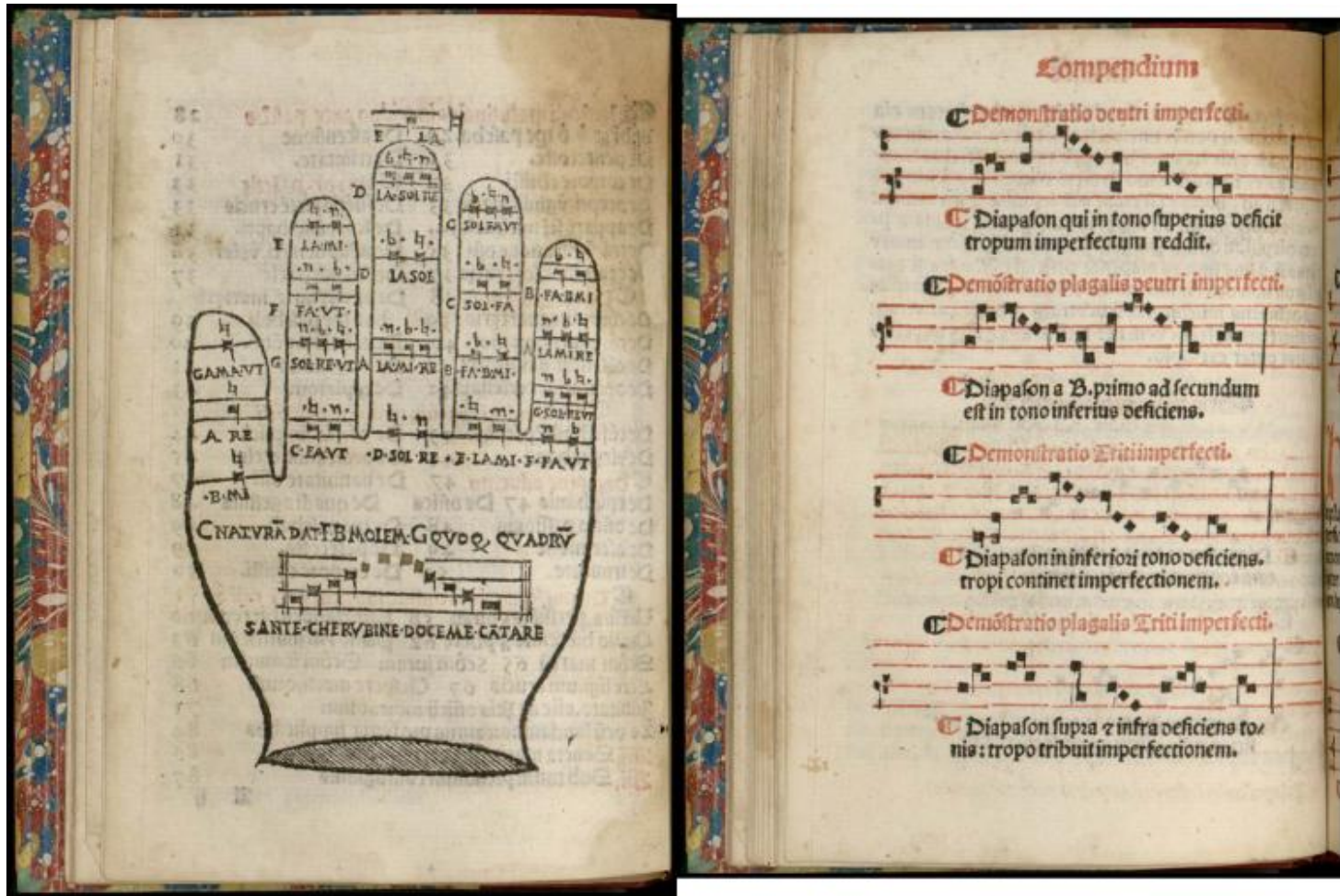
This presentation is available in **pdf** format at

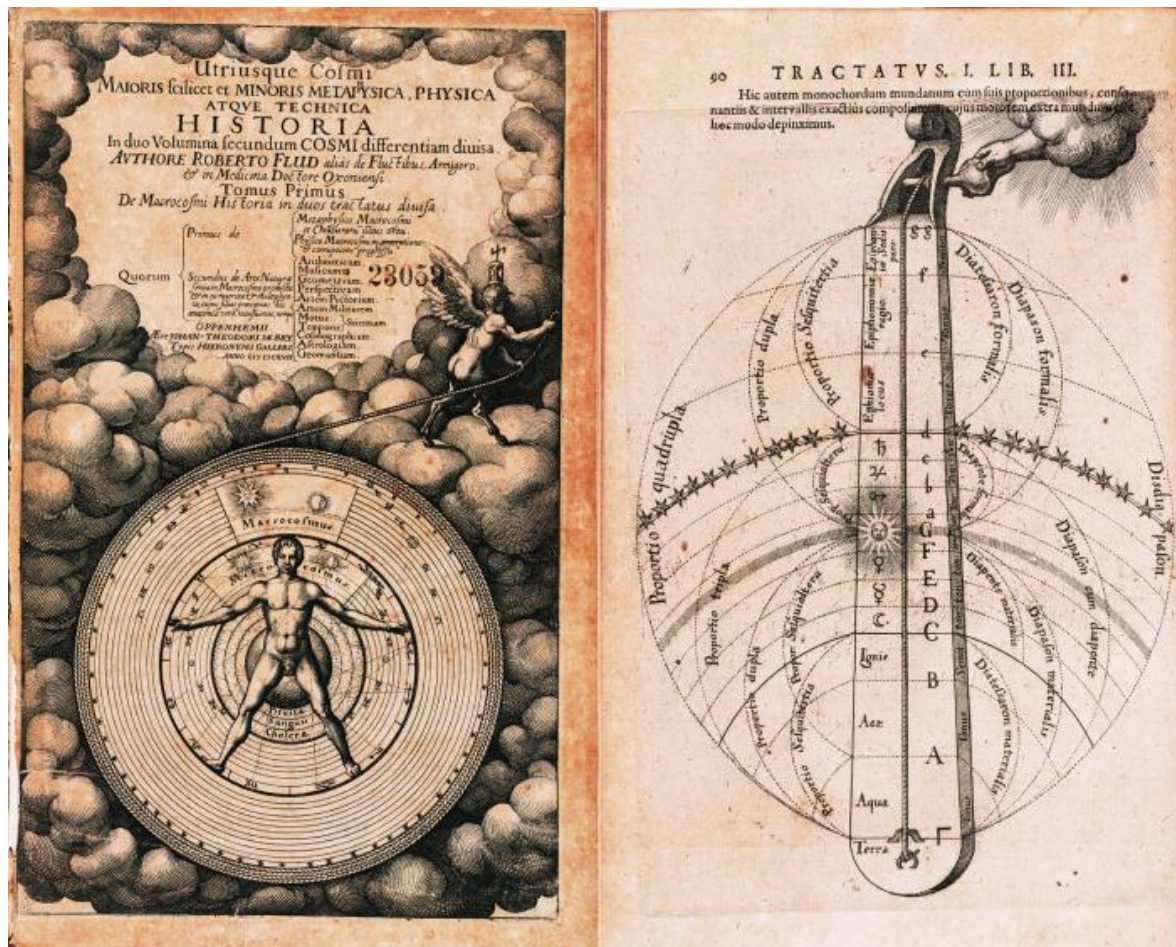
rheadley.net/presentations

Inside the Wind - For Chorus

Randy Raine-Reusch - 07/05/03

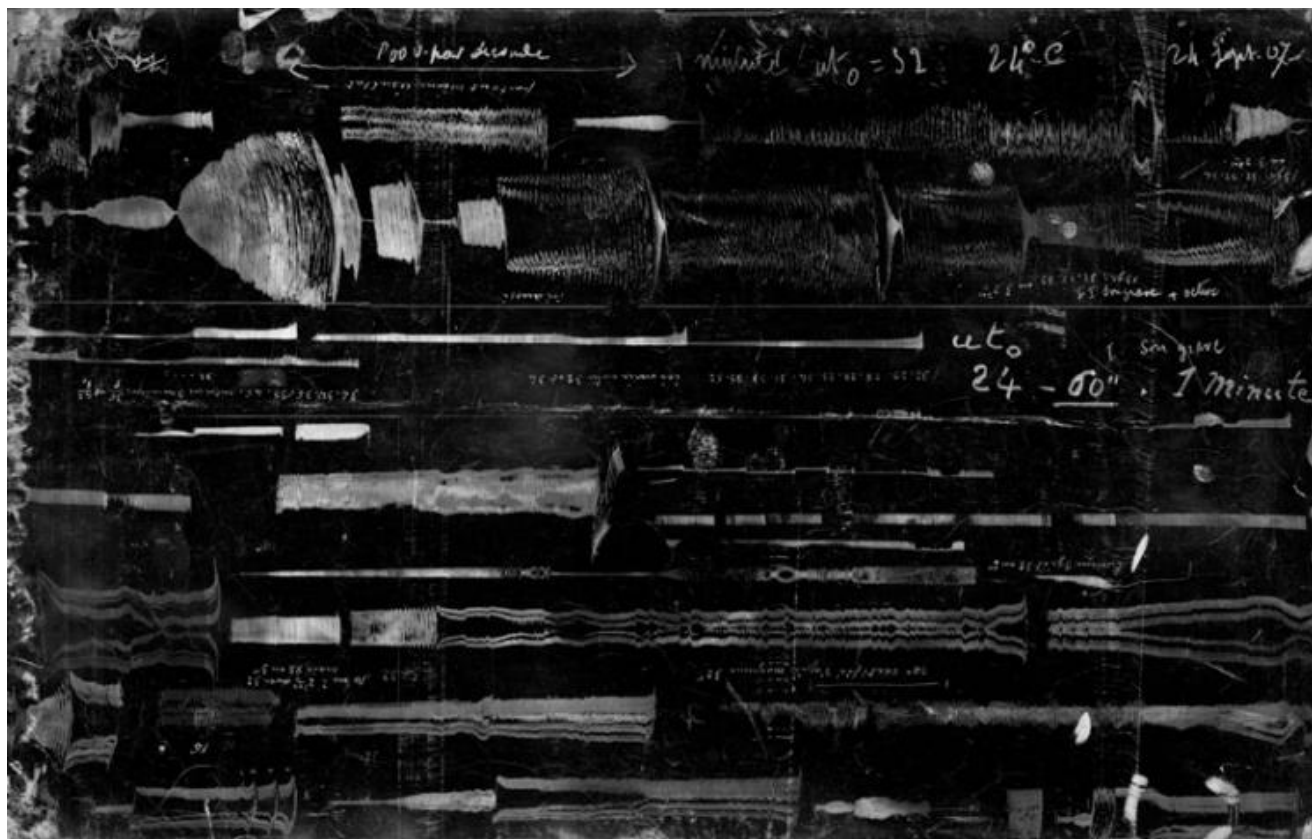




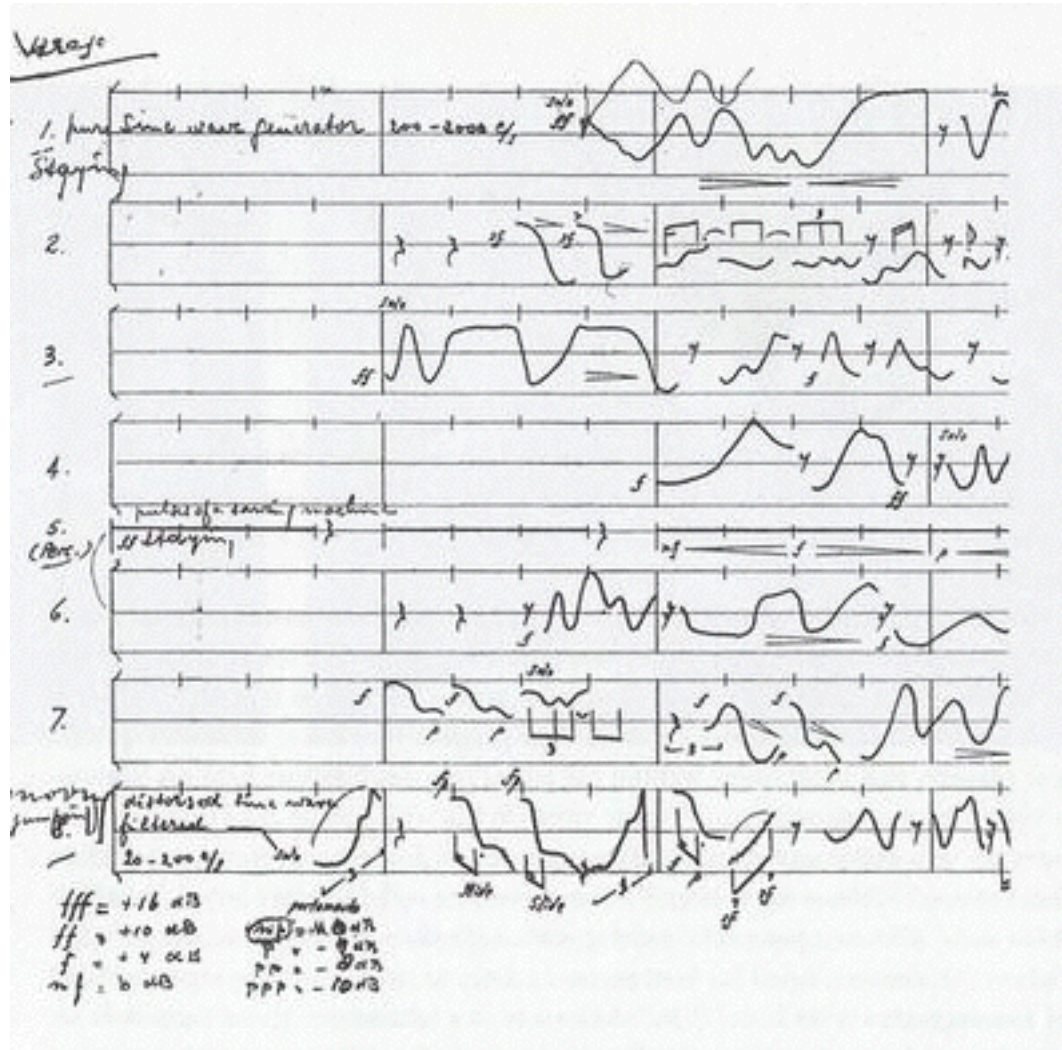


Robert Fludd (1574-1637). Opera, [Francofurti : Goudae], Oppenheimii, J. Th. de Bry et haeredes, C. F. et G. Fitzer, P. Pammazenus, 1617-1638.

Etude: Expérimentale d'Acoustique Musicale (1920)



Varese: Poeme Electronique 'score' (1958)

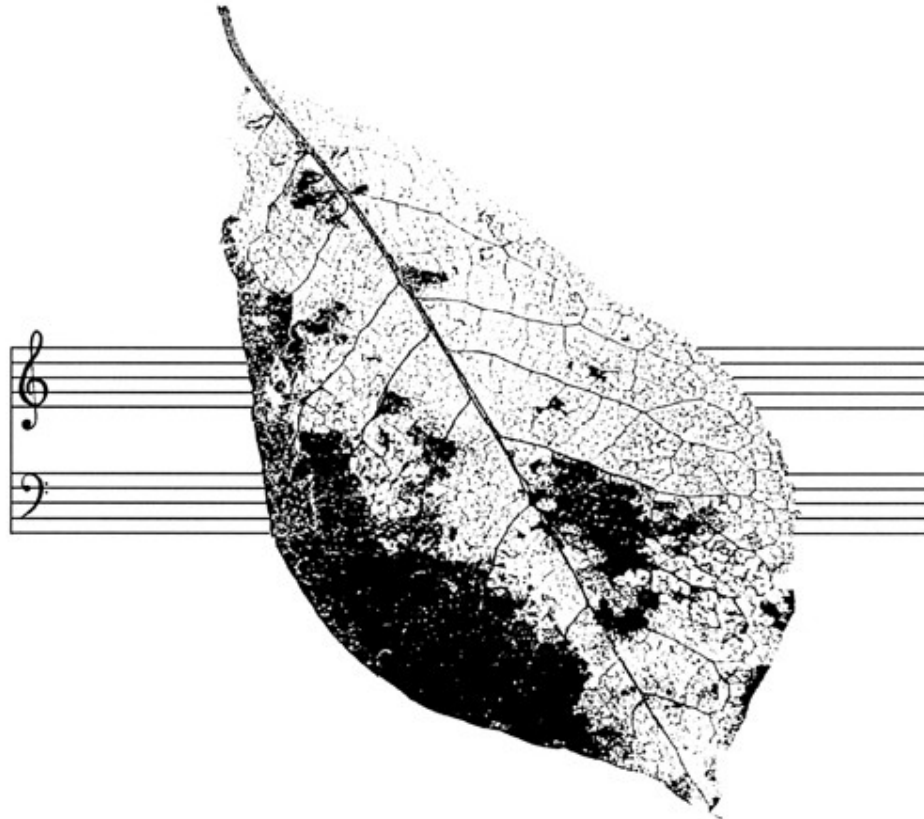


Stockhausen 'Kontakte' (1958-60)

The image shows a page of a musical score for Stockhausen's 'Kontakte' (1958-60). The score is written on multiple staves, with various musical notations including notes, rests, and dynamic markings. The score is divided into sections by vertical lines, with some sections marked with numbers like 336, 453, and 1765. The notation includes various rhythmic values, accidentals, and dynamic markings such as 'f' (forte) and 'fff' (fortissimo). The overall style is characteristic of Stockhausen's experimental and electronic music.

Leaves 2 (1993)

“This score can be performed aurally, visually, kinesthetically, synaesthetically, interactively, literally, symbolically, or philosophically.”



Inside the Wind for Chorus (2003)

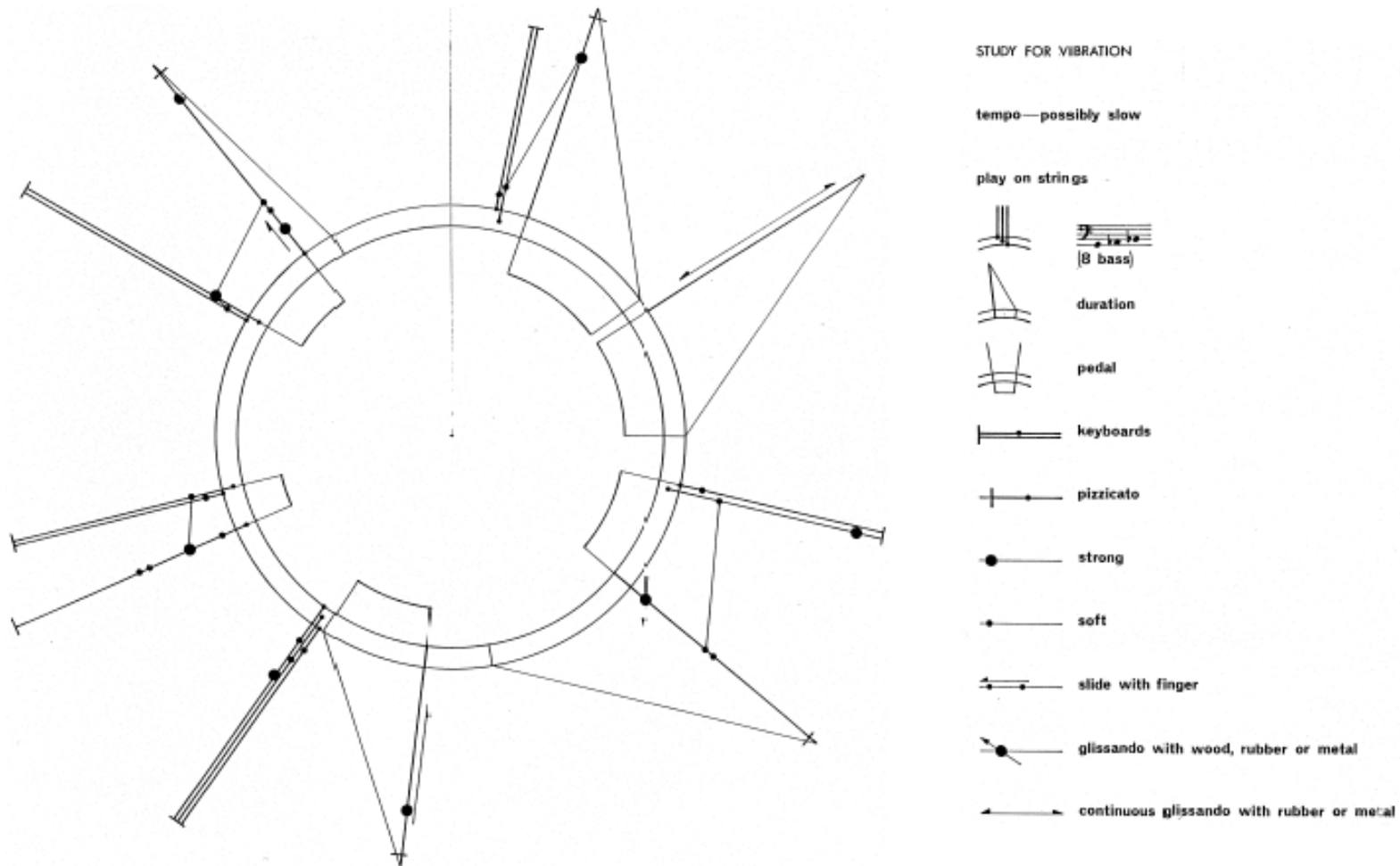


Inside the Wind - For Chorus

Randy Raine-Reusch - 07/05/03

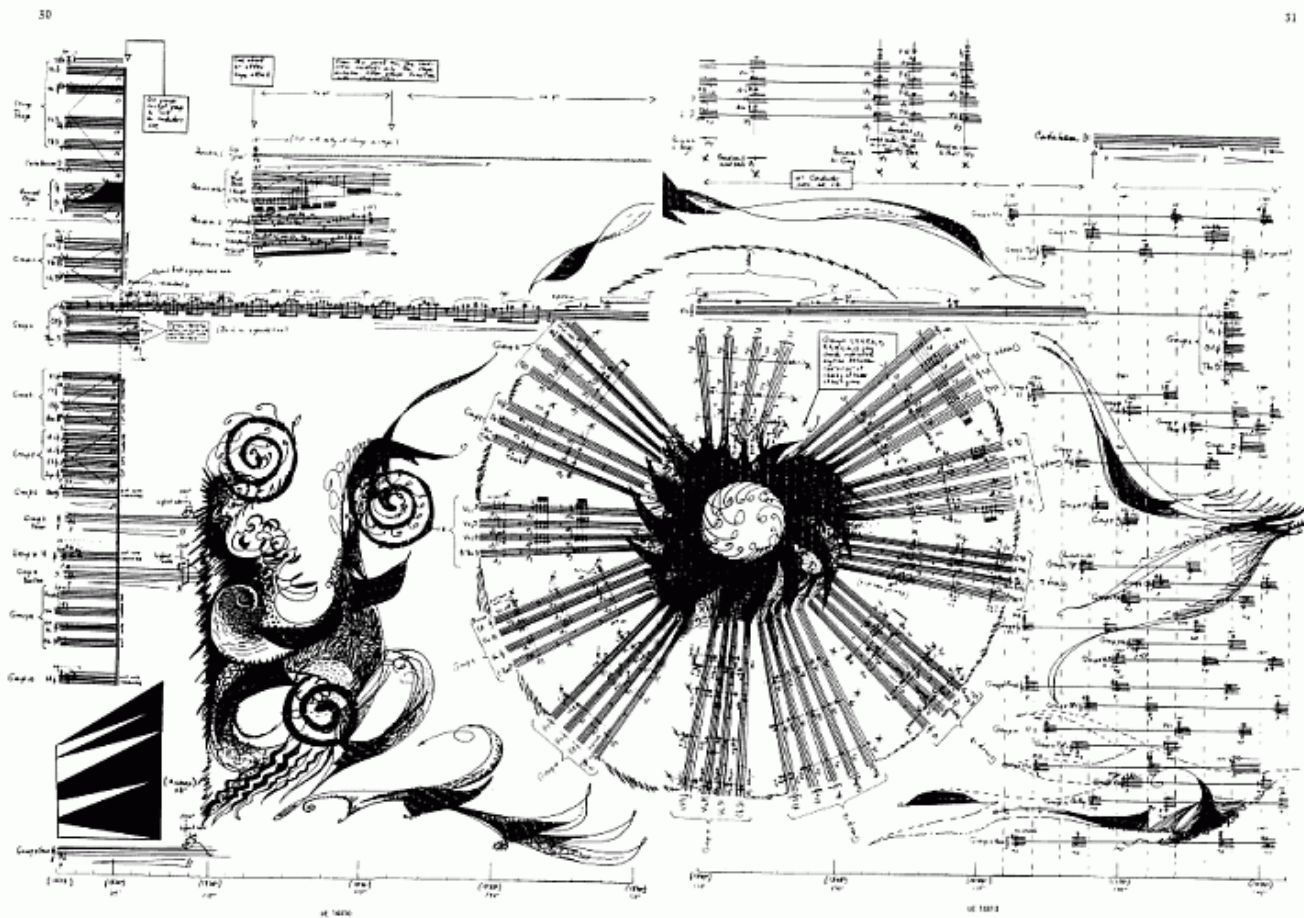


Study for Vibration (from **Corona for Pianists**) (1962)




"The performance may start at any point of the perimeter no matter clockwise or counterclockwise."

Divan I Shams I Tabriz for Orchestra, seven singers and electronic sounds
(1977)




Notation as **Art Murray Schafer**

bird gong game · written for an absent soloist. (with the composer) 1992 on Allen Stone



sustained

V flute also clarinet trumpet
alto voice



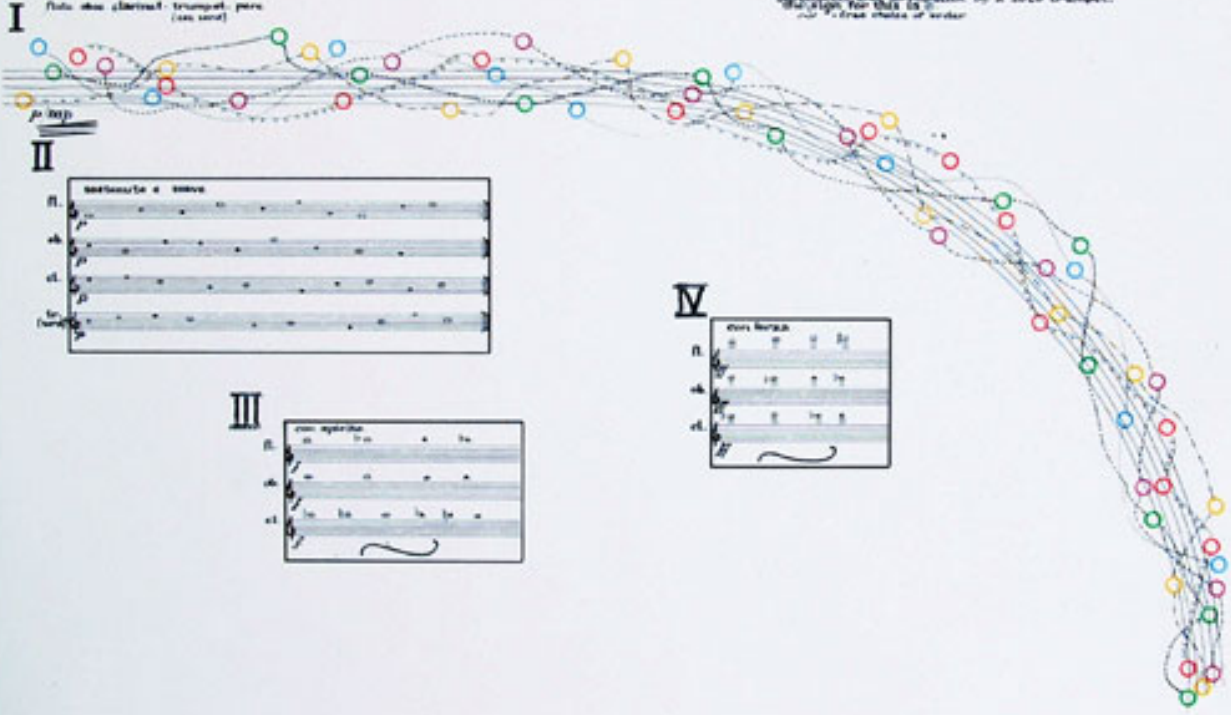
optional

the game consists of four sections identified by the signs ♪ (tutti), ■ (mobile), ★ (solo), and ♫ (sustained). these are combined thus: ♪■, ♪★, ♪♫, ■★, ■♫, ★♫. the performer is free to use any of these signs in any order. the directions with these markings are: ♪ the tempo is to be played a little less quickly than in the previous section; ■ the tempo should have a continuous, gently changing level; ★ no particular marking should be accompanied with this sign; ♫ the music may have a more sustained, or dramatic, or even improvisatory feel. it is suggested that a new starting point be chosen.

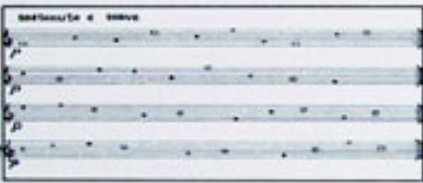
necessary preconditions:
the piece should begin and end with ♪, i.e. the tutti section begins with ♪ and ends with ♪; the piece should end with ♫ and the tempo should stop and arbitrary at the beginning of the next section.

the signs for this is: ♪ ♫

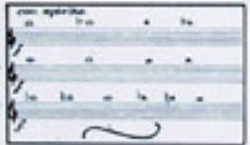
I flute also clarinet trumpet perc.
(see score)



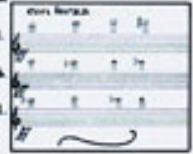
II saxophone 4 voices



III saxophone 4 voices



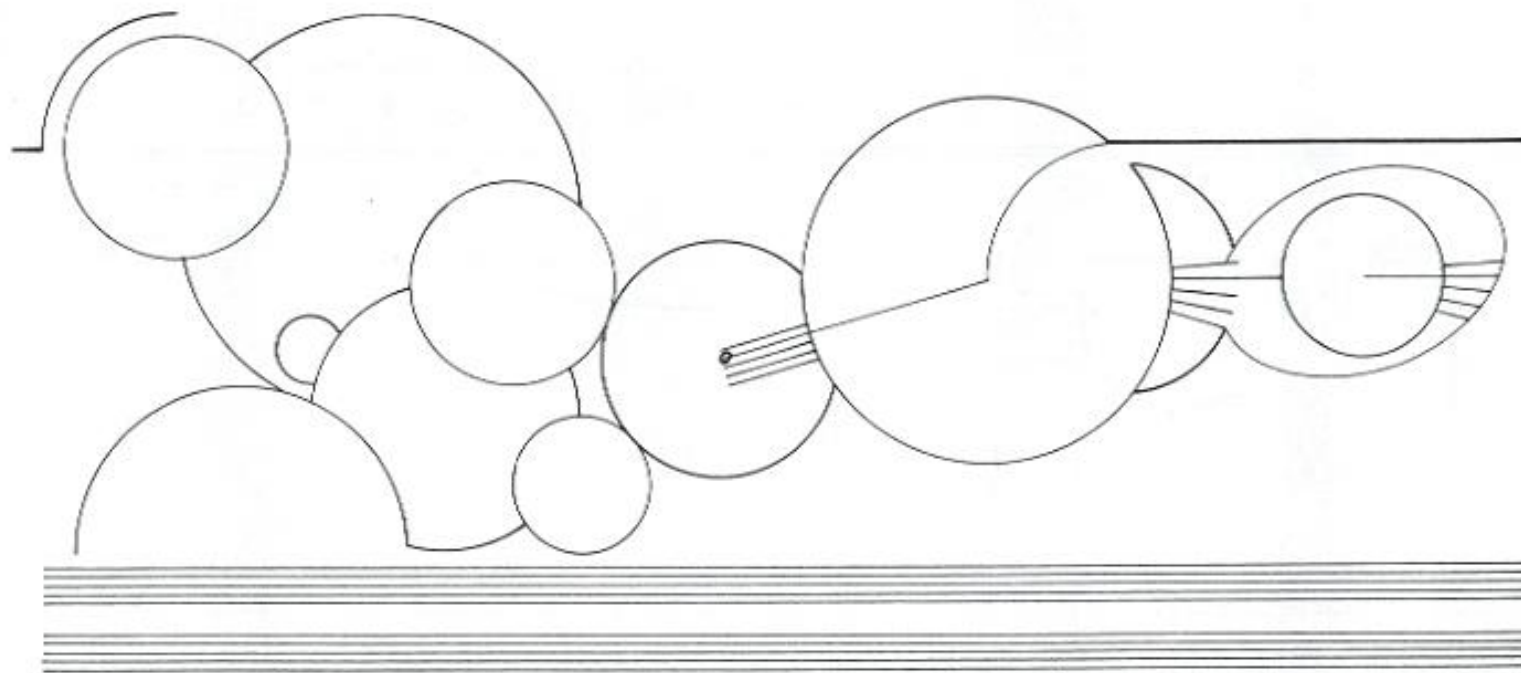
IV saxophone



P J 1992

Notation as Art Cornelius **Cardew**

Treatise (detail, with audio) (1967)

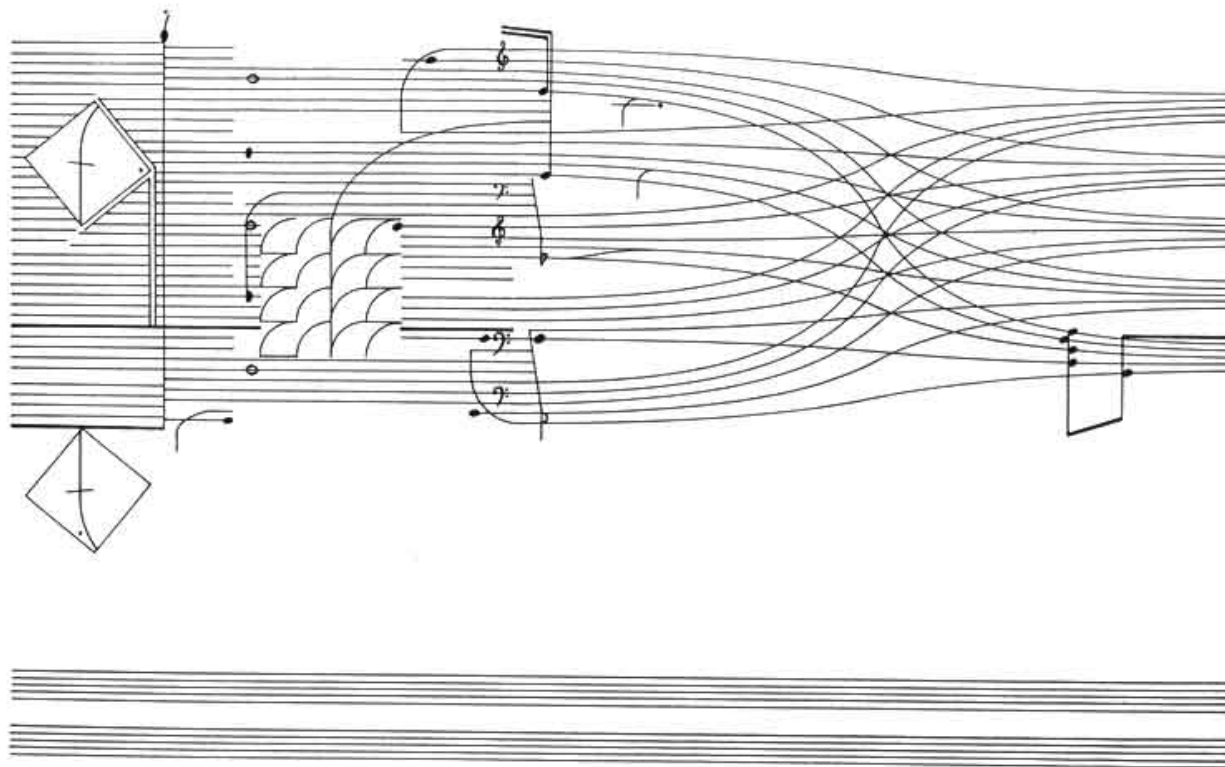


3

Recording from Cornelius Cardew Memorial Concert:
<http://www.ubu.com/sound/cardew.html>

Notation as Art Cornelius **Cardew**

Treatise (detail) (1967)

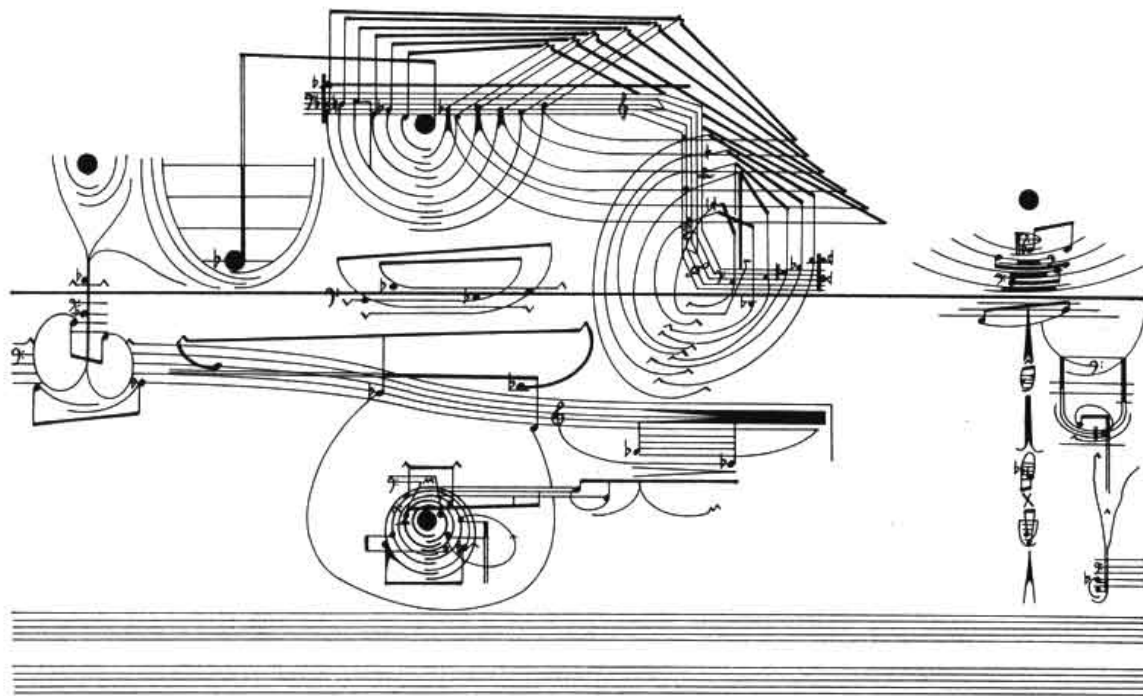


Treatise - Performed by Seven Guitars

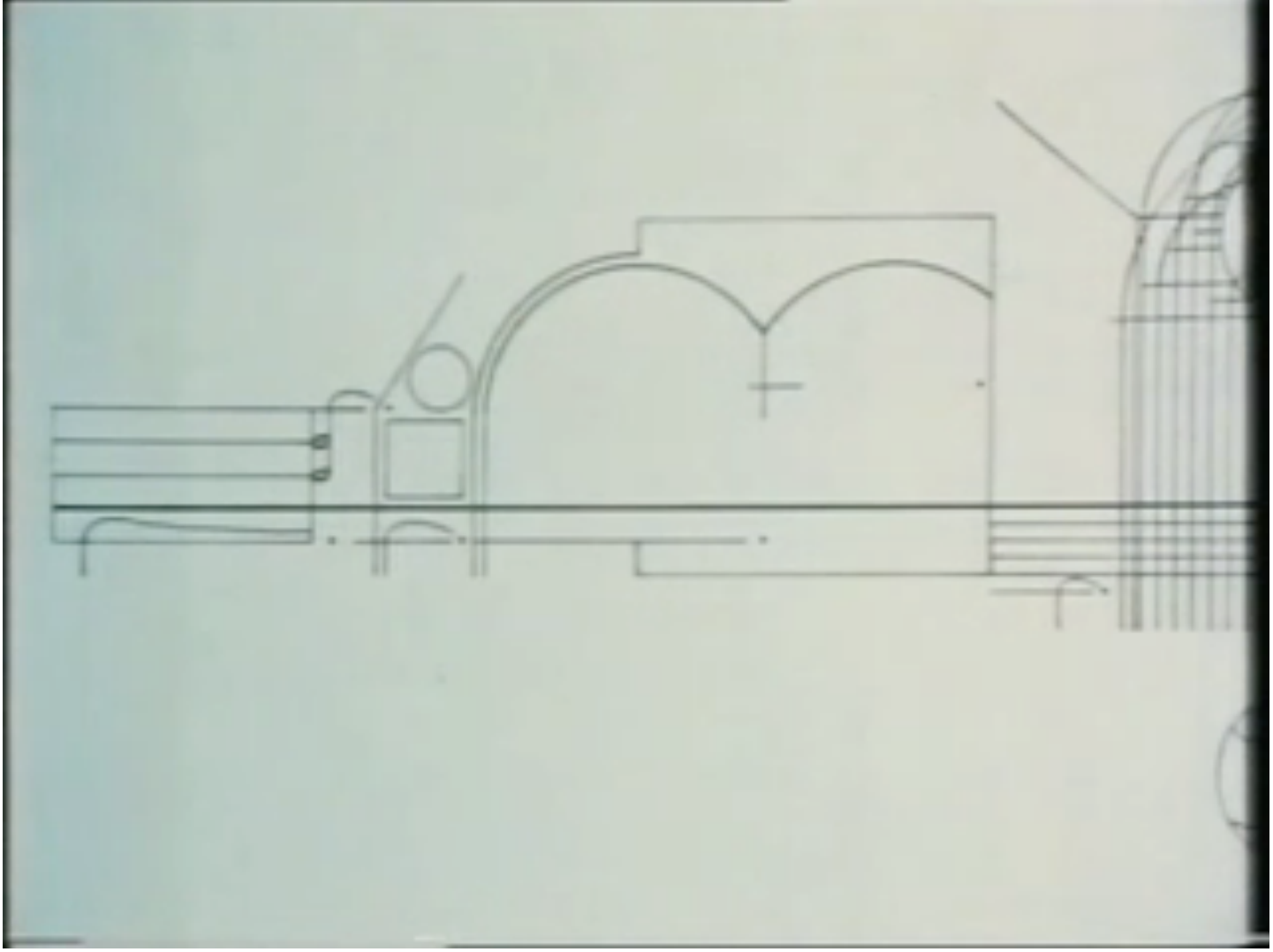
29

Notation as Art Cornelius **Cardew**

Treatise (detail) (1967)



183



[6:31]

Treatise: An Animated Analysis

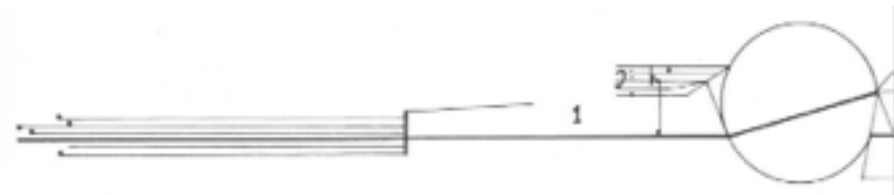
<http://www.blockmuseum.northwestern.edu/picturesofmusic/pages/anim.html>

Index

1. Introduction
2. Recurring Features of *Treatise*
What are the visual elements that characterize this score?
3. Principles of Organization (Gestalt Psychology)
A description of some of the ways humans organize visual information, with examples.
4. Musical Parameters
Fundamental concepts related to interpreting the visuals musically.
5. Freeform Interpretation

● Index ◀ Back ⏮ Replay Continue ▶

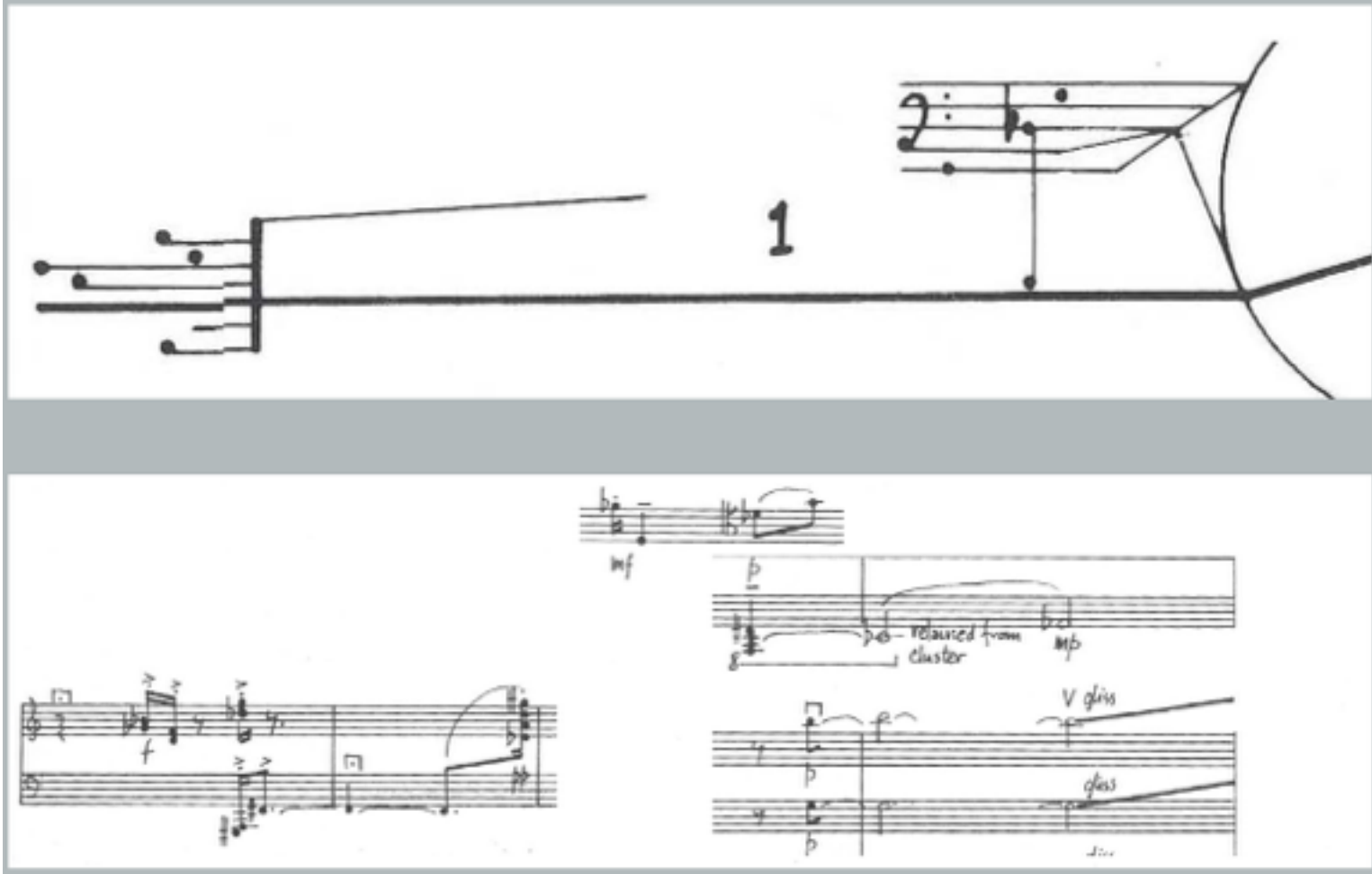
The slide features a diagram of a musical score on a black background. A horizontal line is drawn across the middle. Above the line, a large, rounded, white shape is labeled '1' at its left end and '2' at its right end. Below the line, a similar shape is labeled '1' at its left end. To the right of the diagram, there are two musical staves. The top staff has a treble clef and a key signature of one flat. It contains a series of notes and rests, with a '1' above a specific note. The bottom staff has a bass clef and contains notes and rests, with a '1' above a specific note.



Title

Graphic notations:

Subtitle



12. Spiral Galaxy

[SYMBOL]

Aquarius



George **Crumb**: **Makrokosmos** | - 12. **Spiral Galaxy**
[Symbol] Aquarius (1973)

12. Agnus Dei [SYMBOL]

Capricorn

Very slow, like chanting (♩ = 40)

Come sopra (♩ = 40)

suspended in endless time

[R.W. v9]

[click for audio]

George Crumb **Makrokosmos II - 12. Agnus Dei**
[Symbol] Capricorn (1973) (with audio)

Elizabeth Harington **The Art of Fugue** bookart



Notation as Art

A literary use or response to the fugue can be found in Joyce's 11th episode in *Ulysses* ('**Sirens**') in which the wording and chapter structure attempted - with some poetic license - to **mimic** or work within the **rules** of the **fugue**. Unsurprisingly, a quick search on '**Sirens**' revealed that John **Cage**, a leading musical experimentalist and graphic score '**artist**' names **James Joyce** as an influence (also see Cage's **Roratorio**).

See: 'James Joyce and Avant Garde Music', Scott W. Klein 2004 at the Contemporary Music Centre.

James Joyce and Avant Garde Music

Sonic Art **Sonic Art**

James Joyce **Finnegans Wake** (1939)

(one audio file)

Well, you know or don't you kennet or haven't I told you every telling has a taling and that's the he and the she of it. Look, look, the dusk is growing! My branches lofty are taking root. And my cold cher's gone ashley, Fieluhr? Filou! What age is at? It saon is late. 'Tis endless now senne eye or erewone last saw Waterhouse's clogh. They took it asunder, I hurd thum sigh. When will they reassemble it? O, my back, my back, my bach! I'd want to go to Aches-les Pains, Pingpong! There's the Belle for Sexaloitez! And Concepta de Send-us-pray! Pang! Wring out the clothes! Wring in the dew! Godavari, vert the showers when the grate have greeding, shonny, vert spread them here now? Ay, we will. Fleat Spread on your bank and I'll spread mine on mine. Flep! It's what I'm doing. Spreader from churning chills Der went is rising I'll lay a few stones on the hostel sheets before him, making his reading of the work an early them. Else I'd have sprinkled and folded them on my And little my butcher's apron here. It's suety yet. The strollers will pass it by. Six shifts, ten kerchiefs, nine to hold to the fire and this for the code, the convent napkins, twelve, one baby's shawl. Good mother Jossiph knows, she said. Whose head?

Kerry John Andrews **For Andrea section 4** [detail]

The image displays a musical score for 'For Andrea section 4' with several graphical annotations. The score is organized into four systems, each with a different time signature and set of lyrics. The first system is in 6/4 time with lyrics 'cement transforms our re-la-tion...glamour.'. The second system is in 4/4 time with lyrics 'sss...saturates...her being...'. The third system is in 2/8 time with lyrics '...glamour... accessible...'. The fourth system consists of four measures with time signatures 4/4, 2/4, 6/8, and 4/4, and lyrics 'But... a shadow falls onto the door'. Graphical elements include colored vertical bars (blue, orange, green), beams, and arrows labeled 'solo note' with numbers 2, 3, and 4. A large grey arrow points from the first system to the second.

Notation as Art

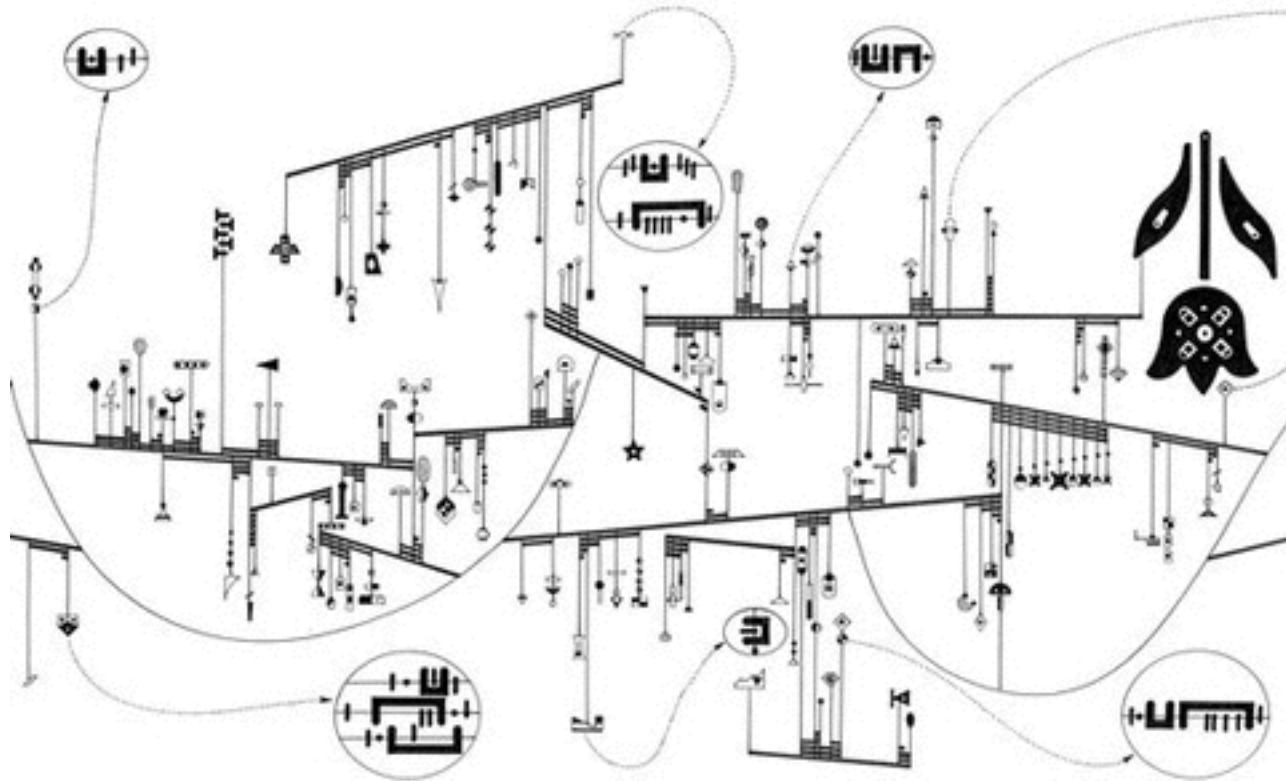
Kircher/Monteverdi



There's No Sound In My Head: Mark Applebaum's Metaphysics of Notation

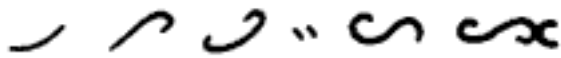
Part 1

Part 2



Two versions of **musical notations** from **China**

Ascending second

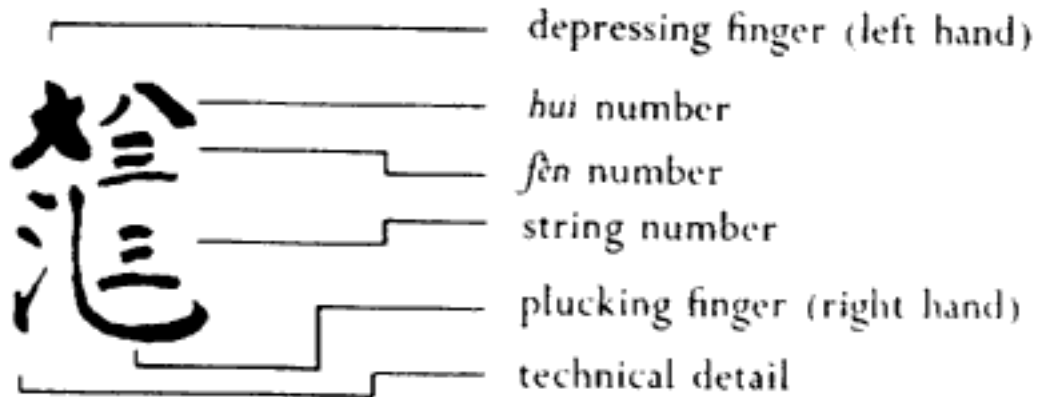


Descending second











As you can see from these examples, notation is more than just a particular view of a particular musical idea - it will soon become apparent that musical notation has a profound effect on the nature of the ideas themselves, as well as indicating to us the musical priorities of the culture that invented them.

As you can imagine, these notations have a significant effect on what can be described and how it can be described. Virtually any piece of western classical music would be difficult to read or write using this system. What does this tell us about notation in general?






Hugo Cole **Signs and Symbols**

GRAPHICAL	NON - GRAPHICAL
<p>a) Road signs  (Picturegraphs)</p> <p style="text-align: center;">Turn left</p>	<p> (Ideographs)</p> <p style="text-align: center;">End of speed limit</p>
<p>b) Ornament notations</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Ascending trill with turned ending. (Muffat, 1726)</p> </div> <div style="text-align: center;">  <p>Trill (modern)</p> </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>A Shake (Purcell, 1696)</p> </div> <div style="text-align: center;">  <p>Trill (modern)</p> </div> </div>
<p>c) Avant-garde group-signs</p> <p style="text-align: center;">Roger Reynolds: 'Quick are the Months of Earth'</p> 	<p style="text-align: center;">Cardew: Octet, 61</p> 




Above is a table from Hugo Cole's book **Signs and Symbols**, showing examples of two primary types of musical symbols used throughout the world. As you can see, this division also applies to other symbols we use, including our written languages. Symbols either describe their meaning by graphical similarity (**pictograms**) or through less obvious, more abstract associations (although these may well have once been graphical too), (**ideograms**).

1) Take three intonations of the word 'yes' and give an approximate indication of each by an appropriate accent sign:

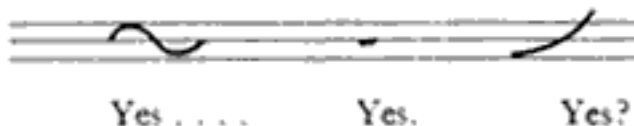
Yes . . .	(considering, doubtful)	
Yes.	(curt, businesslike)	
Yes?	(question)	

Also taken from Hugo Cole's book. Take a very simple human verbal response and, through a variety of processes of varying complexity, investigate the varieties of notation appropriate.

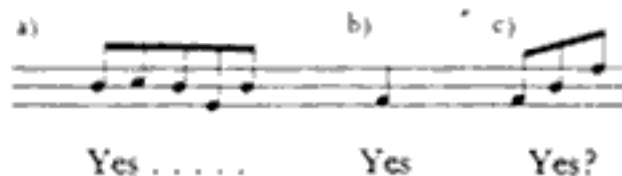
2) A fixed line can be added to represent fundamental speaking tone:

		
Yes	Yes.	Yes?

3) Other lines can be added to define intervals in common use:



4) On the analogy of alphabet writing, and on the single pitch signs, as at (b) below, each sign can be segmented. The sound continuum is divided up into distinct pitch levels:



5) The tune can be separated from the word. Pitch can be fixed to any degree of precision. (In normal use, we take c,d,e,f,g . . . to mean 'the sounds practising musicians accept as c,d,e,f,g'.):



6) We can return to the first notation, and convert it into a precise time-pitch graph, representing the sound as pitch-continuum, after the manner of today's proportionate notations:



7) At (4), we have gained the power to specify many types of melodic pattern, but at the price of limiting our idea of 'melody' to 'that which can be notated by a series of fixed pitches'. But we can still produce approximations to subtly inflected pronunciations:



Notation in the Twentieth Century

Since the early days of western notation, certain elements have become more and more explicitly governed by notation and at the same time, the complexity of the musical grammar of these ideas has also become more complex as composers have sought to achieve ever more original ideas. The first two examples, both from Stockhausen show one aspect of this problem, specifically here with the complexity of dynamic information making both the reading and performance of such material very difficult:

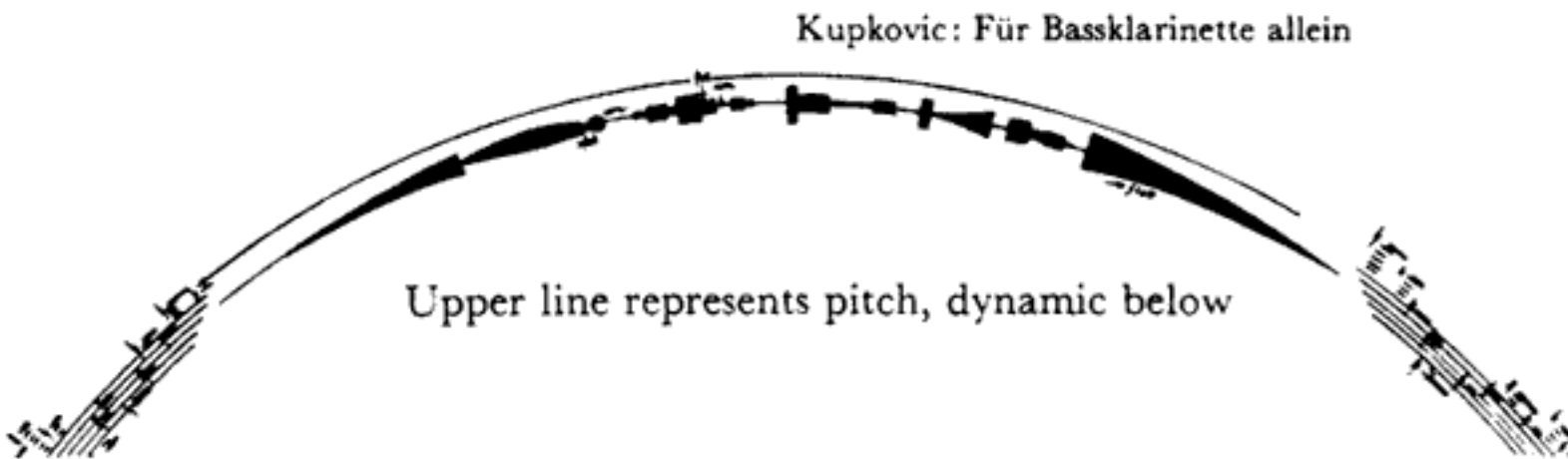


Stockhausen **Klavierstück 1**

Stockhausen: Klavierstück I

The image displays a musical score for Stockhausen's Klavierstück I. It features two staves, treble and bass clef. The score is characterized by complex rhythmic structures, including time signatures such as 11:10, 7:5, 5:4, 56/48, 7/8, 25/48, 3/4, and 3/8. Dynamic markings like *pp*, *fff*, *p*, *mf*, *f*, and *fff* are used throughout. The notation includes various note values, rests, and articulation marks. A large number '2' is placed above the first staff, and a '3' is placed above the second staff. The score is presented in a black and white, handwritten style.

Methods with which **composers** have attempted to **overcome problems** of **over-complexity** in **notation**



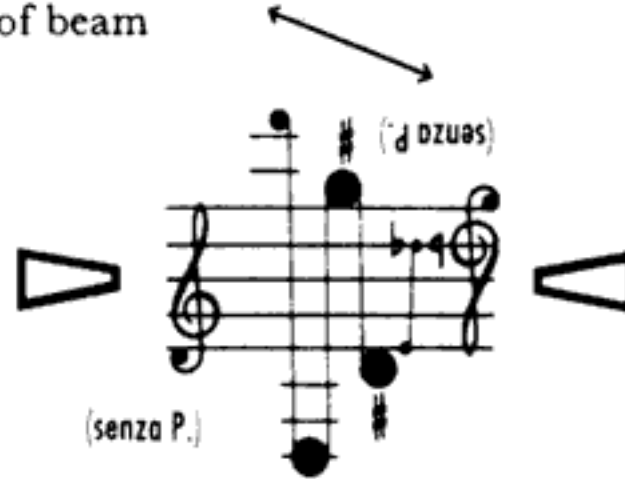
Bartolozzi: New Sounds for Woodwind



Dynamic indicated by thickening of beam

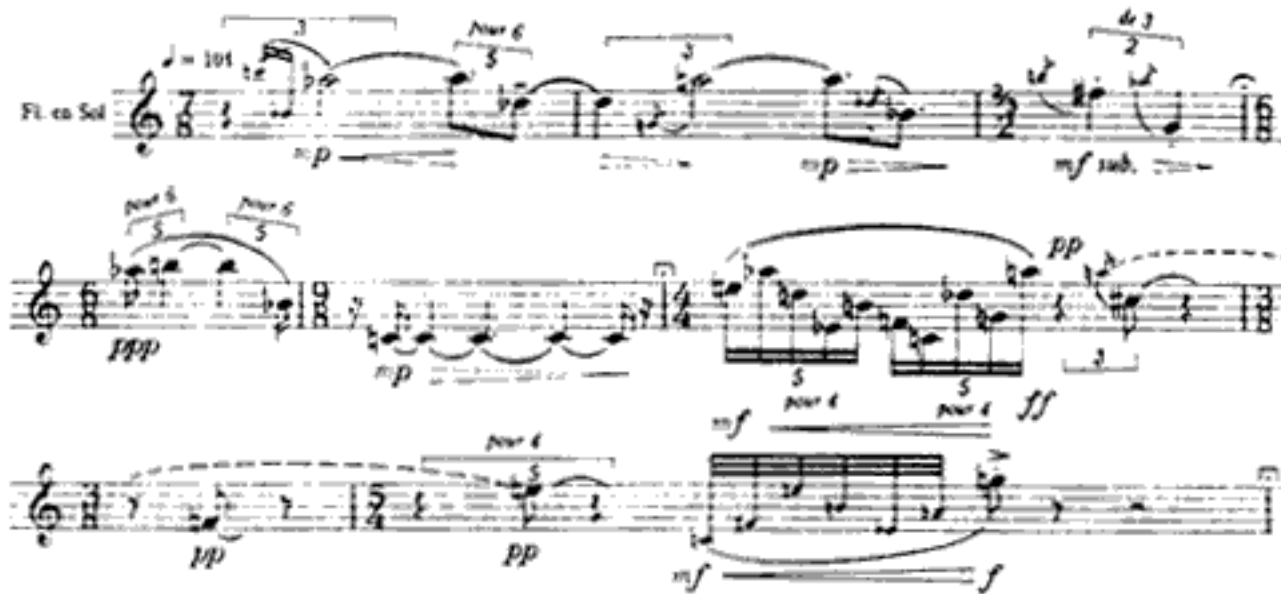
Cage: Changes
5 11 8 155
Numbers indicate dynamic levels

Stockhausen: Zyklus



Arrow indicates ritenuto
Loudness shown by size of notehead

Complexity and Simplicity



Boulez Le Marteau Sans Maître original

Boulez **Le Marteau Sans Maître** 'alternative' version

The image shows a musical score for two instruments. The top staff is labeled 'Alto Flute' and begins with the instruction 'free time'. It features a series of notes with dynamic markings: *mp*, *mf*, and *ppp*. Above the staff, there are time annotations: '5 secs.' and '4-5 secs.' with arrows indicating the duration of specific phrases. The bottom staff continues the piece with dynamic markings: *mp*, *mf*, *ff*, *pp*, *mf*, and *f*. A '6 secs.' annotation is placed above a long note in this staff. The notation includes various musical symbols such as slurs, accents, and dynamic hairpins.

[click for each line]

- There follow a variety of examples of **different forms** of notation.
- See how well you think they **communicate**.
- Why have none of these, or, for that matter, *any* of the other examples of these really **come into use**? Or have they?
- Can you think of any **examples** which might have done?
- Why do you think these composers felt the need to **experiment** in these ways?

Earle Brown **Available Forms 2**

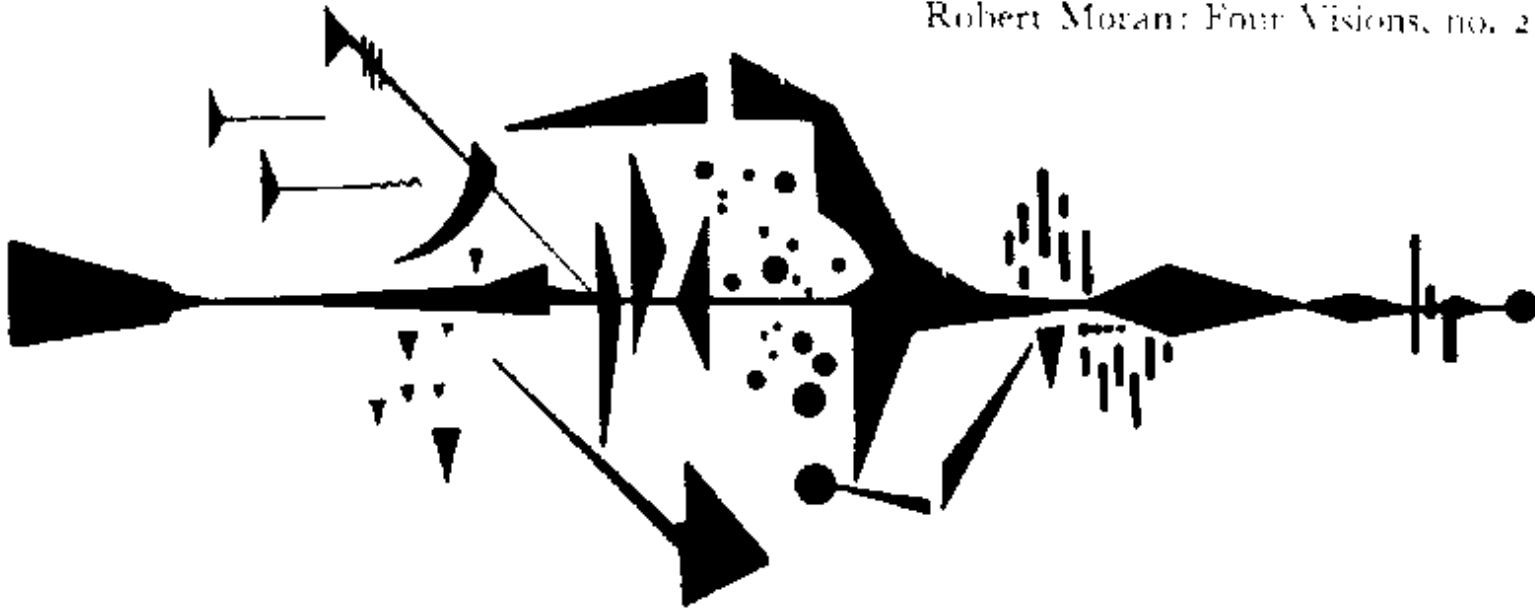
Earle Brown: Available forms II

The image shows a handwritten musical score for four instruments: HARP, PIANO (CEL.), VIB., and XYL. Each instrument has a staff with a treble clef and a key signature of one flat. The HARP and PIANO (CEL.) parts include performance instructions: 'MUTED SOUNDS AND SOUNDS ABOVE TUNING NUTS'. The VIB. and XYL. parts include the instruction 'VERY SOFT MALL.'. The notation is highly expressive and abstract, with many notes and lines that are not clearly defined, suggesting a focus on timbre and texture over traditional melody and harmony.

Notation as Art

Robert Moran **Four Visions No.2**

Robert Moran: Four Visions, no. 2

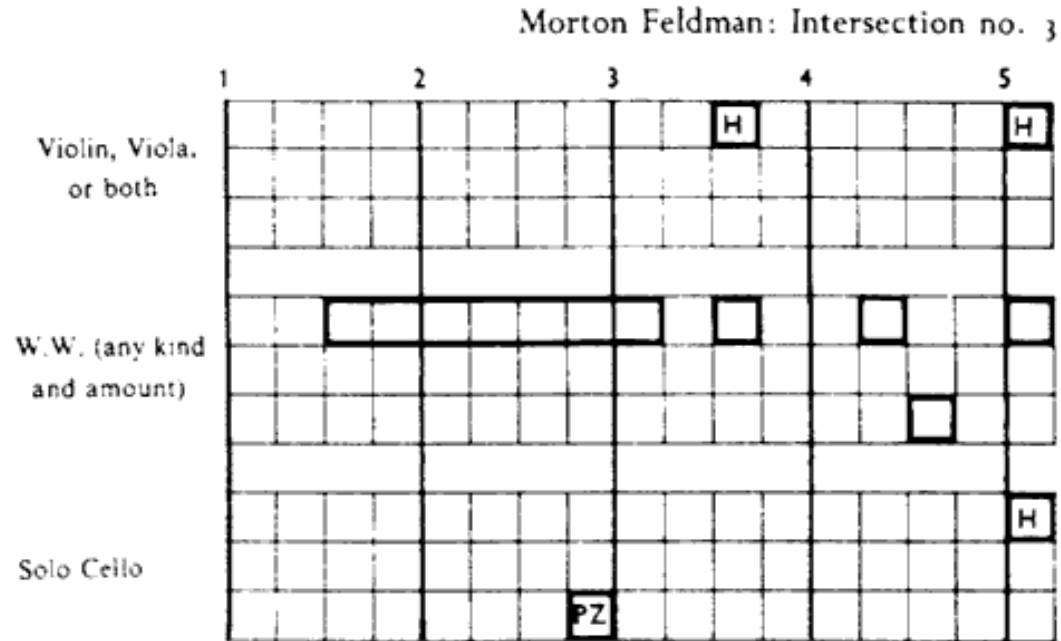


Christian Wolf **Duet 2**

			7'		3'	
5'				4'		
	2'					2'
					4'	
2'		6'				5'

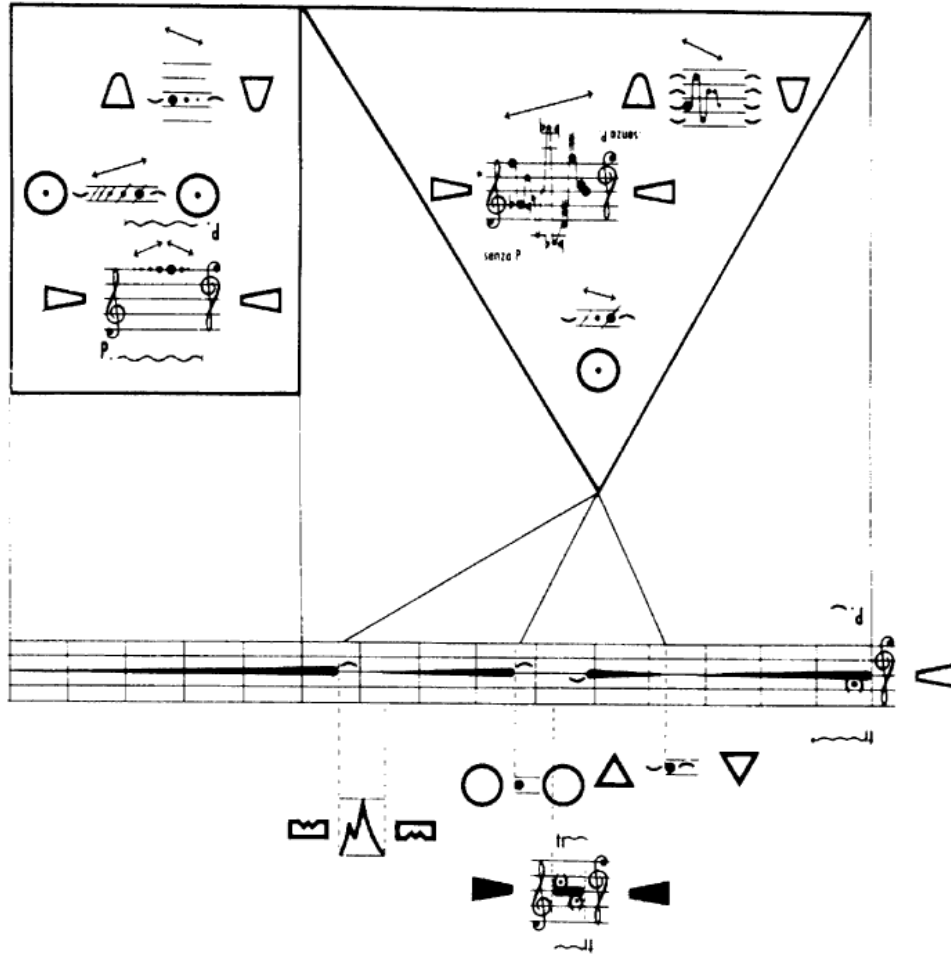
Notation as Art

Morton Feldman **Intersection 3**



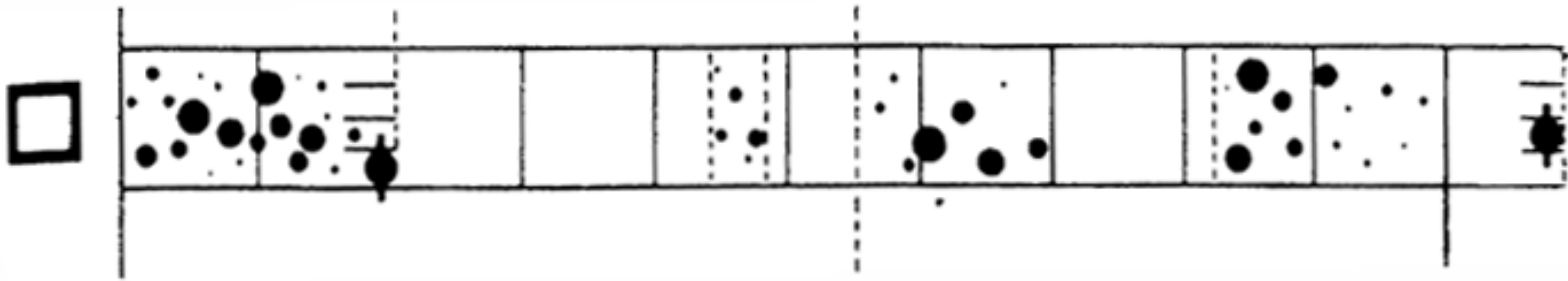
Squares horizontally represent a time-unit of M.M.72. 'Vertically, each of the three squares represents a general pitch level: low, medium, and high. Each instrument comes in when its part has a blocked-in square, but once it has entered, the tone or tones must remain until the blocked-in square ends. Sometimes the composer indicates by an H that he wishes harmony, or by Pz that a pizzicato tone would be appreciated.'²⁶

Karlheinz Stockhausen **Zyklus**



Notation as Art

Karlheinz Stockhausen **Zyklus**



Cornelius Cardew **Octet '61**

Cornelius Cardew: Octet '61

The image displays a handwritten musical score for 'Octet '61' by Cornelius Cardew. At the top, the title 'Cornelius Cardew: Octet '61' is written. Below the title, six individual musical staves are arranged horizontally, each labeled with a circled number from 1 to 6. These staves contain various musical notations, including treble clefs, notes, rests, and accidentals. Below these six staves, a larger, more complex musical notation is presented on a single staff. This notation includes a series of rhythmic markings, such as vertical lines, arrows, and numbers (1 through 6), which correspond to the numbered staves above. The notation is highly abstract and experimental, characteristic of Cardew's style. The overall appearance is that of a hand-drawn manuscript.

Text Pieces: **Stockhausen** From the Seven Days **Right Durations** (1968)

Play a sound
Play it for so long
until you feel
that you should stop

Again play a sound
Play it for so long
until you feel
that you should stop

and so on

Stop
when you feel
that you should stop

But whether you play or stop:
keep listening to the others

At best play
when people are listening

Do not rehearse

<http://rhizome.org/editorial/2013/sep/23/impossible-music-black-midi/>

<http://knowyourmeme.com/memes/black-midi>

Animated notation and kinetic typography

[**http://animatednotation.blogspot.co.uk**](http://animatednotation.blogspot.co.uk)

[**http://animatednotation.com**](http://animatednotation.com)

[**https://vimeo.com/channels/kinetictypography**](https://vimeo.com/channels/kinetictypography)

...demo?

Notation as Art

Visualisation

Consider notation as visualisation

<http://animatednotation.com>

<http://animatednotation.blogspot.co.uk>

TENOR

Live coding

INScore

- Notations (Cage)
- Notations 21 (Theresa Sauer 2009)
- **Book** (available on web)
- **Experimental music notation resources** (available on web)
- Turntable notations:
- **<http://www.thetika.com/turntablism-notation-methods/>**
- **S-notation**
- **TTM**

- Sounds and Signs (Cole 1974)
- Orchestration (Piston 1955)
- Orchestration (Blatter 1980)
- Behind Bars (Gould 2011)

“This brings me to the notational dilemma of the 1940's and 1950's: the precise notation which results in imprecise performance. Can we speak at all of precise notation if the practical realisation can but approximate the complexities on the page?”

“to learn to play the disorderly in orderly fashion is to multiply rehearsal time by one hundred”

- The Changing Composer-Performer Relationship: A Monologue and a Dialogue (Foss 1963)

Bibliography

<http://bibliodyssey.blogspot.com/2006/07/visual-context-of-music.html>

<http://www.blockmuseum.northwestern.edu/picturesofmusic/>

Epilogue...

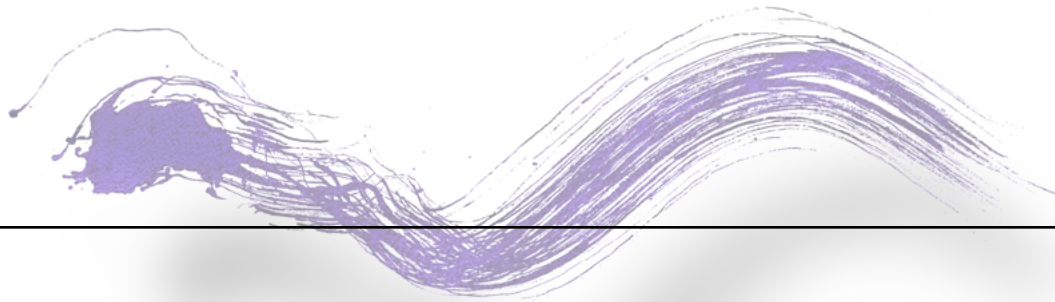


Notation as Art

Other **Presentations**

[**http://rheadley.net/presentations**](http://rheadley.net/presentations)

end



Inside the Wind - For Chorus

Randy Raine-Reusch - 07/05/03

